

**REMARKS**

Responsive to the Official Action mailed November 7, 2003, Applicants provide the following remarks. Reconsideration and allowance of the subject application, as amended, is respectfully requested.

**Claim Amendments**

We note, with appreciation, the allowance of Claim 4. We respectfully submit that the remaining solicited claims are also now in proper condition for allowance, which action is respectfully requested.

Claims 1-3 and 5-11 have been cancelled. New Claims 23-31 have been added, which are directed to the subject matter thereof. No narrowing amendments have been made and no new matter has been added. New Claims 23-31 clarify that the core and coil winding are “of at least a minimum size for operably generating an electromagnetic field for interrogation and detection of electronic article surveillance markers.”

**Rejections over Davies et al.**

Claims 16-18 have been rejected under 35 U.S.C. §102(b) as being anticipated by Davies et al. (U.S. Patent No. 5,345,222). Davies discloses a detection apparatus for security systems that comprises a solid core-wound drive coil. As shown in Figure 4 of Davies and discussed in column 5, lines 14-20 thereof, this core may comprise a box 42, which is an extruded aluminum form having a small gap 43 along its length. Alternatively, the box may consist of one or more insulated layers 53 of copper or aluminum sheet “wound on an insulating former 52, 54, the coil 51 being wound round the whole (FIG. 5).”

In sharp contrast, the claimed invention incorporates a core comprising a central member disposed between a first outer member and a second outer member, wherein at least a portion of the central member extends beyond an end portion of one of the first and second outer members. We respectfully submit that this is not disclosed in Davies. As illustrated in Figure 5 of Davies, the first and second outer layers (52, 53) are wound concentrically around the outside of the central member (54). The central member is not disposed between a first outer member and a second outer member, as in the claimed invention.

Because Davies fails to teach and disclose each and every element of the claimed invention, we respectfully request that the rejection under 35 U.S.C. §102 be withdrawn.

Claim 19 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Davies et al. However, we respectfully submit that, as set forth above, Davies fails to teach or suggest the expressly recited aspect of the claimed invention that the core comprises a central member disposed between a first outer member and a second outer member. Accordingly, we respectfully request that the rejection under 35 U.S.C. §103 be withdrawn.

**Rejection over Davies et al. with Yoshizawa et al.**

Claims 1-3, 11-15, and 20-22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Davies et al. in view of Yoshizawa et al. (U.S. Patent No. 5,567,537). As noted above, Davies discloses a solid core article surveillance system. Yoshizawa discloses a laminated thin film magnetic core element having a high Q value for use in PC cards and the like.

We respectfully submit that it would not be obvious to modify the thin film antenna of Yoshizawa for incorporation into the detection system of Davies for further adaptation into the form of the claimed invention. We respectfully note that the Yoshizawa reference teaches away from such a combination and subsequent modification, and thus one of ordinary skill in the art would have no motivation to make these hypothetical changes.

Yoshizawa teaches in column 5, lines 57-58, that the “thickness of the laminated magnetic core is 3mm or less, preferably 1mm or less.” When read in view of the remaining disclosure in Yoshizawa, it is clear that Yoshizawa is teaching a thin film antenna to be used in an IC card, and achieving the highest Q value possible in the smallest antenna.

We respectfully note that the laminated thin film disclosed in Yoshizawa is not, in and of itself, of “at least a minimum size for operably generating an electromagnetic field for interrogation and detection of surveillance markers,” as in the claimed invention. One of ordinary skill in the art would need some motivation from the Yoshizawa reference in order to adapt this thin film for use in a detection system as disclosed in Davies.

However, Yoshizawa strives to produce a **smaller** antenna core, not a larger one as needed to achieve the claimed size and operability. We agree with the Examiner that Yoshizawa combined with Davies would teach one of ordinary skill in the art to minimize the antenna size,

but we respectfully submit that this is not the claimed invention. In the claimed invention, the core and coil must be of at least a minimum size to operably generate the claimed interrogation and detection fields. That is, the coil and core must be at least the smallest size still large enough to operably generate the necessary fields, which is larger than the thin film disclosed in Yoshizawa.

Because the very purpose of the laminate disclosed in Yoshizawa is to minimize antenna size, we respectfully submit that the hypothetical combination of that reference with Davies would not motivate one of ordinary skill to adapt that antenna contrary to this express teaching and along the lines of the claimed invention.

Similarly, in regard to Claims 2 and 3, Yoshizawa combined with Davies would lead one of ordinary skill in the art away from the larger core needed in the claimed invention.

In regard to Claim 11, we respectfully note that Yoshizawa teaches toward a higher Q value (at least 25 or more, preferably 35 or more, and more preferably 40 or more -- as indicated in column 5, lines 58-60). We also respectfully note that in Figure 3 of Yoshizawa, and the remaining examples disclosed therein, Yoshizawa is teaching towards maximizing the Q value, and not towards minimizing it as in the claimed invention. Thus, one would not be motivated to modify Yoshizawa toward the claimed invention.

In regard to Claim 12, we note that, Davies does not disclose a core having a central member disposed between a first outer member and a second outer member, as in the claimed invention. We respectfully submit that Yoshizawa fails to cure this deficiency of Davies.

In regard to Claim 15, the hypothetical combination of Davies and Yoshizawa teaches away from the claimed size of the core.

In regard to Claims 20-22, Yoshizawa teaches away from the claimed invention, thus one of ordinary skill in the art would not be motivated to combine these references to adapt the methodology of Davies along the line of the claimed invention.

Accordingly, we respectfully request that the rejection under 35 U.S.C. §103 be withdrawn.

**Rejection over Davies et al. with Yoshizawa et al. and Balch et al.**

Claims 5-8 and 10 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Davies et al. in view of Yoshizawa, et al. and Balch, et al. (U.S. Patent No. 6, 118, 378). As



discussed above, neither Davies nor Yoshizawa, whether taken alone or in a hypothetical combination, teaches or suggests the claimed invention, including a core and coil having at least a minimum size for operably generating an electromagnetic field for interrogating and detecting electronic surveillance markers. We respectfully submit that Balch fails to satisfy the deficiencies of Davies and Yoshizawa. Accordingly, we respectfully request that the rejection under 35 USC §103 be withdrawn.

**Rejection over Davies et al. with Yoshizawa et al. and Martinides**

Claims 7-10 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Davies, et al. in view of Yoshizawa, et al. and Martinides (U.S. Patent No. 5,371,490). As discussed above, Davies and Yoshizawa fail to teach or suggest, whether alone or in hypothetical combination, the core and coil of the claimed invention. We respectfully submit that Martinides fails to satisfy these deficiencies in Davies and Yoshizawa. Martinides discloses a system for electronic safeguarding against burglary and nowhere teaches or suggests a core and coil being of at least a minimum size to operably generate an electromagnetic field for interrogating and detecting electronic surveillance markers.

Accordingly, we respectfully request that the rejection under 35 U.S.C. §103 be withdrawn.

Respectfully submitted,

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